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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,834	01/15/2002	Kelly Molenaar	MAC - 203	1333

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MCKELLAR IP LAW, PLLC
784 SOUTH POSEYVILLE ROAD
MIDLAND, MI 48640

EXAMINER

GARCIA, ERNESTO

ART UNIT	PAPER NUMBER
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3679

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/050,834

Applicant(s)

MOLENAAR, KELLY

Examiner

Ernesto Garcia

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007 and 20 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-10 is/are pending in the application.
- 4a) Of the above claim(s) 3, 5-7 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on December 10, 2007 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

Claims 3, 5-7, and 10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 12, 2003.

Regarding the withdrawal of claim 10, this claim is not readable upon the elected invention, Figure 9, as has been indicated by applicant because this is the same subject matter of cancelled claim 2, which was withdrawn. Specifically, Figure 9 does not contain a socket, i.e., the cylindrical housing 16, having a means of attachment.

Drawings

The drawings are objected to because the cross-hatching of the housing in Figure 6 and the retaining member in Figure 8 must be shown since these components are shown in cross-section. Further, the axis 300-300 should be shown in broken line. Further, the ends of the broken line 200-200 in Figure 7 and 100-100 in Figure 3 should be designated by Arabic or Roman numerals corresponding to the view number of the sectional view. See 37 CFR 1.84(h)(3) and MPEP 608.02(e). Further, the solid black shading for the channels 26 in Figures 4 and 6 is not permitted. See 37 CFR 1.84(m). Furthermore, Figure 9 should contain a bracket enclosing the exploded view.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing

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figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 3 and 9 are objected to because of the following informalities:

regarding claim 3, --external threads-- in line 2 should be --an external thread-- since there is only one thread and not two or more different threads; and,

regarding claim 9, "lubricants" in line 15 should be --a lubricant-- to provide proper antecedent basis to lubricant in line 16, and "it" in line 17 should be defined.

Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 8, and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 9, the recitation "the lubricant providing the only mechanism for compressing the ball and holding it in the lower end of the housing" in lines 16-17 is not supported by the original disclosure. e.g., see page 6, lines 10-12, recites that the lubricant is "also" a means to help adjust the ball 3 in the housing. Apparently, there's something else in the invention that additionally provides pressure other than the lubricant. According to the figures, the retaining member 6 also provides the pressure since this is also the means for adjusting the ball in the housing. Therefore, the specification does not comply with the written description.

Regarding claims 4 and 8, the claims depend from claim 8 and therefore are not supported by the written description.

Claims 4, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, the recitations "the support arm" and "the suspension system" in line 2 lack proper antecedent basis.

Regarding claim 9, the metes and bounds of the claim is unclear. In particular, it is unclear whether the retaining member is part of the metal ball joint since line 11 inferentially recites that the housing is "internally threaded to receive a retaining member" while lines 13-21 further limit the retaining member as being part of the joint. For purposes of this Office action, the examiner has considered the retaining member as being part of the combination. It is also unclear whether the lubricant is claimed as well since such has been set forth only as intended use. See claim 9, lines 15-16. Assuming, arguendo, that the lubricant or lubricants are not claimed, how does the limitation "the lubricant providing the only mechanism for compressing the ball and holding it in the lower end of the housing" in lines 15-17 further limit the ball joint? Moreover, how can the lubricant be "the only mechanism" holding the ball in the lower

end of the housing when such lubricant must inherently interact with the other elements recited in order to "hold" the ball?

Regarding claim 8, the claim depends from claim 9 and therefore is indefinite.

Claim Rejections - 35 USC § 103

Claims 4, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ninke, 2,900,196, in view of Scheublein Jr. et al., 3,103,377.

Regarding claim 9, Ninke discloses, in Figure 2, a metal ball joint comprising an elongated shaft **18**, a ball **18d**, a retaining member **24**, and a housing **23**. The shaft **18** has an upper end (bottom is up), a lower end (down is up), and a longitudinal axis **a** running through the upper end and the lower end. The shaft **18** is threaded on the lower end. The ball **18d** is rigidly fixed and surmounted on the upper end of the shaft **18**. The ball **18d** has a truncated flat face **18e** at the highest point opposite the upper end of the shaft **18**. The housing **23** has an outside surface, a middle portion, and a lower end. The housing **23** is internally conformed at the lower end of the housing **23**. A portion of the housing **23** is internally threaded **23c**. The middle portion has a means **10a** for attaching the housing **23** to a socket. The retaining member **24** has an upper surface and a lower end. The retaining member **24** has a lubricating port (unreferenced; see Figure 3) located in the upper surface thereof. The port is openly

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connected to a duct **22c**. The duct **22c** provides a passageway **26**. The retaining member **24** is externally threaded **24a** on the lower end of the member **24**. Applicant should note that a lubricant provides the only mechanism for compressing the ball and holding the ball in the lower end of the housing since there is no resilient member inside the housing.

However, Nienke fails to disclose the portion of the housing being internally threaded being the middle portion. Scheublein, Jr. et al. teach, in Figure 1, a different sized housing between figures 1 and 3, where the middle portion of the housing has been internally threaded to encapsulate a ball in a housing. Therefore, as taught by Scheublein, Jr. et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the housing of Nienke to be longer or simply replace the retaining member with that of Scheublein Jr. et al. so that the middle portion of the housing is internally threaded in order to encapsulate the ball in the housing.

Regarding claim 4, the means for attaching the housing **23** to the socket is an external thread **23d** on the external surface of the middle portion of the housing **23**.

Regarding claim 8, the internally conformed lower end of the housing **23** comprises shallow channels **31**, **34**.

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Claims 9 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheublein, Jr. et al., 2,954,993, and Maughan, 5,564,853.

Regarding claim 9, Scheublein, Jr. et al., '933 disclose in Figure 9 a metal ball joint comprising an elongated shaft **94**, a ball **100**, a retaining member **104**, and a housing **91**. The shaft **94** has an upper end **A2** (see marked-up attachment provided in the last Office action), a lower end **A3**, and a longitudinal axis **x** running through the upper end **A2** and the lower end **A3**. The shaft **94** is threaded on the lower end **A3**. The ball **100** is rigidly fixed and surmounted on the upper end **A2** of the shaft **94**. The member **104** is externally threaded (col. 5, lines 59-61) on the lower end **A9** of the member **104**. The housing **91** has an outside surface **A13**, a middle portion **A14**, and a lower end **92**. The housing **91** is internally conformed at the lower end **92** of the housing **91**. A middle portion of the housing **91** is internally threaded (col. 5, lines 59-61). The middle portion **A14** has a means **95** for attaching the housing **91** to a socket. The retaining member has an upper surface **A8** and a lower end. The retaining member **104** has a lubricating port **106** located in the upper surface **A8** thereof. The lubricating port is openly connected to a duct **107** providing a passageway. Appellant is reminded that the lower end **92** of the housing **91**, being internally conformed, is for seating the ball **100** and that a lubricant provides the only mechanism for compressing the ball and holding the ball in the lower end of the housing **91**. The retaining member **104** is externally threaded on the lower end of the retaining member **104**.

However, Figure 9 in Scheublein Jr. et al. fails to disclose a fastening means for fastening the retaining member **104** in the housing **91**; and the ball **100**, at a highest point opposite the upper end **A2** of the shaft **94**, having a truncated flat face.

Scheublein, Jr. et al. '933 teach, in Figure 4, a ball **59**, at a highest point opposite an upper end of a shaft **52**, having a truncated flat face (unreferenced above **59**). Scheublein, Jr. et al. '933 do not discuss the reason for truncating the ball to have a truncated flat face. It appears that a truncated flat face provides a gap for storing more lubricant than a ball without a truncated flat face. Therefore, as taught by Scheublein et al. '933, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the truncated flat face on the ball, at the highest point opposite an attachment of the shaft to provide a gap for storing more lubricant than a ball without a truncated flat face.

Further, Maughan teaches, in Figure 8, a ball joint comprising a fastening means **260, 262** for fastening a retaining member **244** in a housing **208** to stake the retaining member **244** in place (col. 7, lines 61-62). Therefore, as taught by Maughan, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a fastening means for fastening the member in the housing to stake the member in place.

Regarding claim 4, Scheublein, Jr. et al. '933 disclose the attaching means **95** is external threads on an external surface of the middle portion **A14** of the housing **91** (col. 5, lines 53-55).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheublein, Jr. et al., 2,954,993, and Maughan, 5,564,853, as applied to claim 1, and further in view of Maughan et al., 5,885,022.

Regarding claim 8, Scheublein, Jr. et al., as modified, fails to disclose the internally conformed lower end of the housing comprising shallow channels. Maughan et al. teach, in Figure 1, an internally conformed lower end 36 comprising shallow channels 38 to improve joint lubrication (col. 2, lines 63-65). Therefore, as taught by Maughan et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the internally conformed lower end of Scheublein, Jr. et al. with shallow channels to improve joint lubrication.

Response to Arguments

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30AM-6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

E.G.

E.G.
January 7, 2008



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600